

IN THE CLAIMS

Please amend the claims as follows.

1. (currently amended) A discrete package comprising:

a lead frame pad which has a first surface and a second surface, the second surface which is the opposite surface of the first surface;

leads connected to a side of the lead frame pad;

a semiconductor chip attached to the first surface of the lead frame pad;

a ceramic layer having a first and a second surface and which is positioned to directly contact the second surface of the lead frame pad;

a molding material which entirely encapsulates the lead frame pad, the semiconductor chip, and a portion of the ceramic layer, except the leads and the second surface of the ceramic layer; and

wherein the lead frame pad is held in contact with ~~contacts~~ the ceramic layer by using only the molding material.

2. (previously presented) The discrete package of claim 1, wherein the leads are stepped with respect to the lead frame pad.

3. (original) The discrete package of claim 1, further comprising wires which electrically connect the leads to the semiconductor chip.

4. (original) The discrete package of claim 1, wherein the lead frame pad is formed to a thickness of 0.5 mm.

5. (canceled).

6. (currently amended) A discrete package comprising:

a lead frame pad which has a first surface and a second surface, the second surface which is the opposite surface of the first surface;

leads which are connected to a side of the lead frame pad;
a semiconductor chip which is attached to the first surface of the lead frame pad;
a ceramic layer having a first and second surface and which contacts the second surface of the lead frame pad without using an adhesive; and
a molding material which, by itself, entirely encapsulates the lead frame pad, the semiconductor chip, and a portion of the ceramic layer, except the leads and the second surface of the ceramic layer.

7. (previously presented) The discrete package of claim 6, wherein the leads are stepped with respect to the lead frame pad.

8. (original) The discrete package of claim 6, further comprising wires which electrically connect the leads to the semiconductor chip.

9. (original) The discrete package of claim 6, wherein the lead frame pad is formed to a thickness of 0.5 mm.

10. (canceled)

11. (currently amended) A discrete semiconductor package, comprising:
a lead frame having a first surface and a second surface with a lead connected to the lead frame;
a semiconductor chip attached to the first surface of the lead frame; and
a ceramic layer having a first surface and a second surface, wherein the first surface of the ceramic layer ~~contacts~~ is held in contact with the second surface of the lead frame by using only a molding material which encapsulates the lead frame, the semiconductor chip, a portion of the lead, and the ceramic layer except for the second surface.

12. (original) The package of claim 11, wherein the first surface of the ceramic layer does not contain a conductive layer.

13. (previously presented) The package of claim 11, wherein the semiconductor chip is attached to the first surface of the lead frame using an adhesive.

14. (currently amended) A discrete semiconductor package, comprising:
a lead frame having a first surface and a second surface with a lead connected to the lead frame;
a semiconductor chip attached to the first surface of the lead frame;
a ceramic layer having a first surface and a second surface, wherein the first surface of the ceramic layer ~~contacts~~ is held in contact with the second surface of the lead frame without using an adhesive; and
a molding material which encapsulates the lead frame, the semiconductor chip, a portion of the lead, and the ceramic layer except for the second surface.

15. (currently amended) An electronic apparatus containing a packaged semiconductor device, the device comprising:
a lead frame having a first surface and a second surface with a lead connected to the lead frame;
a semiconductor chip attached to the first surface of the lead frame;
a ceramic layer having a first surface and a second surface; and
a molding material which encapsulates the lead frame, the semiconductor chip, a portion of the lead, and the ceramic layer except for the second surface;
wherein the ceramic layer is held in contact with ~~contacts~~ the lead frame using only the molding material.

16. (previously presented) The apparatus of claim 15, wherein the first surface of the ceramic layer directly contacts the second surface of the lead frame.

17. (previously presented) The apparatus of claim 15, wherein the first surface of the ceramic layer does not contain a conductive layer.

18. (canceled).

19. (currently amended) A method for making a packaged semiconductor device, comprising:

providing a lead frame having a first surface and a second surface with a lead connected to the lead frame;

providing a semiconductor chip attached to the first surface of the lead frame;

providing a ceramic layer having a first surface and a second surface; and

providing a molding material which encapsulates the lead frame, the semiconductor chip, a portion of the lead, and the ceramic layer except for the second surface;

wherein the ceramic layer is held in contact with ~~contacts~~ the lead frame by using only the molding material.

20. (currently amended) A method for making a packaged semiconductor device, comprising:

providing a lead frame having a first surface and a second surface with a lead connected to the lead frame;

attaching a semiconductor chip to the first surface of the lead frame; and

contacting a first surface of a ceramic layer to the second surface of the lead frame layer and holding them together by only encapsulating the lead frame, the semiconductor chip, a portion of the lead, and the ceramic layer except for the second surface.

21. (previously presented) The method of claim 20, further comprising directly contacting the first surface of the ceramic layer to the second surface of the lead frame.

22. (original) The method of claim 20, wherein the encapsulation is performed using a molding material.

23. (previously presented) The method of claim 22, wherein the first surface of the ceramic layer does not contain a conductive layer.

24. (canceled)

25. (currently amended) A method for making an electronic apparatus, comprising:
providing a packaged semiconductor device by providing a lead frame having a first surface and a second surface with a lead connected to the lead frame, attaching a semiconductor chip to the first surface of the lead frame, and contacting a first surface of a ceramic layer directly to the second surface of the lead frame and holding them together by only encapsulating the lead frame, the semiconductor chip, a portion of the lead, and the ceramic layer except for the second surface;
providing an outer heat sink; and
connecting the packaged semiconductor device to the outer heat sink.

26. (previously presented) The method of claim 19, wherein the first surface of the ceramic layer does not contain a conductive layer.

27. (previously presented) The method of claim 25, wherein the first surface of the ceramic layer does not contain a conductive layer.